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| APPLICATION NO.                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|----------------------|------------------|
| 10/507,929                       | 09/17/2004  | Hiroshi Kawasaki     | 2004_1479A           | 6783             |
| 513                              | 7590        | 07/22/2009           | EXAMINER             |                  |
| WENDEROTH, LIND & PONACK, L.L.P. |             |                      | SULLIVAN, DANIELLE D |                  |
| 1030 15th Street, N.W.,          |             |                      | ART UNIT             | PAPER NUMBER     |
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| Washington, DC 20005-1503        |             |                      |                      |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/507,929             | KAWASAKI ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | DANIELLE SULLIVAN      | 1616                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 26 March 2009.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 and 6-8 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 and 6-8 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

Claims 1 and 6-8 are pending examination.

### ***Withdrawn rejections***

Applicant's amendments and arguments filed 03/26/2009 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below are herein withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura (EP 1101760) in view of Goto et al. (US 5, 362,704).

### **Applicant's Invention**

Applicant claims a herbicidal composition containing (A) 2-[(4,6-dimethoxypyrimidin-2-yl)hydroxymethyl]-6-methoxymethyl-N-difluoromethanesulfonylanilide (pyrimisulfan); and (B) 4-(2-chlorophenyl)-N-cyclohexyl-N-ethyl-4,5-dihydro-5-oxo-1H-tetrazole-1-carboxamide (fentrazamide), wherein there is employed, per 1 part by mass of (A), 1-15 parts by mass of (B).

Applicants claim a method of controlling weeds in a paddy field comprising sprinkling the herbicide composition over the paddy field. Claim 7 further limits the form to a powder of granulated agent in an amount in the range from 0.1g to 5kg per 10 ares. Claim 8 further limits the form to an emulsified agent in an amount in the range from 0.1g to 5kg per 10 ares.

**Determination of the scope and the content of the prior art**

**(MPEP 2141.01)**

Yoshimura teaches 2-[(4,6-dimethoxypyrimidin-2-yl)hydroxymethyl]-6-methoxymethyl-N-difluoromethanesulfonylanilide (pyrimisulfan) used in treating paddy fields as an herbicide [abstract, 0014]. It may be formulated as a granule powder or emulsified concentrate [0050]. The amount is selected from 0.1g to 5kg, per 10 ares as granules and 1 to 50, 000ppm in liquid form [0051]. The herbicide may be used in combination with another herbicide [0052].

**Ascertainment of the difference between the prior art and the claims**

**(MPEP 2141.02)**

Yoshimura does not teach the additional herbicide, fentrazamide. It is for this reason that Goto et al. is joined.

Goto et al. teach novel tetrazolinones for use as paddy herbicides, including fentrazamide (column 1, lines 3-28; Formula I, where Y is hydrogen, R1 is ethyl and R2 is cyclohexyl; column 2, lines 25-43). Further, enhanced herbicidal activity can be exhibited by mixing formula (I) with sulfonamides, including a dimethoxypyrimidin-2-yl sulfonamide (column 3, lines 46-52; column 4, lines 19-21). In general, per one part by

weight of formula (I) 0.01 to 2 parts by weight of sulfonamides may be used (column 5, lines 6-11). The mixed compositions may be a liquid, emulsion, powder or granulated formulation (column 6, lines 3-9). The mixed composition can be used in amounts of 0.1 to 5kg/ha (column 7, lines 40-44).

**Finding of prima facie obviousness**

**Rationale and Motivation (MPEP 2142-2143)**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Yoshimura and Goto et al. to further include a mixed herbicidal composition comprising pyrimisulfan and fentrazamide. It would be prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in prior art." In re Kerkhoven 205 USPQ 1069, (C.C.P.A. 1980). Furthermore, one would have been motivated to include pyrimisulfan and fentrazamide because Goto et al. teaches that enhanced herbicidal activity can be exhibited by mixing fentrazamide with a dimethoxypyrimidin-2-yl sulfonamide. Since, pyrimisulfan is a dimethoxypyrimidin-2-yl sulfonylanilide one would have been motivated to combine it with fentrazamide for enhanced herbicidal activity.

***Response to Arguments***

Applicant argues that the Declaration Under 37 CFR 1.132 overcomes the prior art by showing an unexpectedly superior result.

The declaration under 37 CFR 1.132 filed 3/26/2009 is insufficient to overcome the rejection of claims 1 and 6-8 based upon Yoshimura in view of Goto et al. as set forth in the last Office action because: Applicant has not explained how the results obtained constitute an unexpected, synergistic result. Applicants state that Experiments 21 and 22 show apparent synergistic effects. The examiner has analyzed synergy according to the Colby formula and calculated the expected range for Experiment 21 for Ec in Table 2. The calculated expected value according to the Colby formula was 16.3 whereas the showing was 10. In order to demonstrate synergy, the obtained value in Experiment 21 for Ec must be greater than 16.3. This is not the case and hence synergy has not been demonstrated. It is Applicant's burden to demonstrate synergy in relation to the Colby formula.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIELLE SULLIVAN whose telephone number is (571)270-3285. The examiner can normally be reached on 7:30 AM - 5:00 PM Mon-Thur EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on (571) 272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Danielle Sullivan  
Patent Examiner  
Art Unit 1616

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/Johann R. Richter/  
Supervisory Patent Examiner, Art Unit 1616